

## SEQUENCE LISTING

<110> Mitsuhashi, Kazuya  
Yamamoto, Hiroaki  
Matsuyama, Akinobu  
Tokuyama, Shinji

<120> D-aminoacylase and gene encoding the same

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<150> JP 2000-019080

<151> 2000-01-27

<150> JP 2000-150578

<151> 2000-05-22

<160> 27

<170> PatentIn Ver. 2.0

<210> 1

<211> 1677

<212> DNA

<213> Hypomyces mycophilus

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gccaaaatca cccaaggatg cacaacggaa gttgtgggcc aagacgggat atcatatgca 300  
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ttggttccgc aaggcaacct gagattattg gcatgtggcc catacgatac tccagcatct 540  
gcagaagaga ttcaagatca aatccagctc ttgcgagagg ctatggctca ggggtgctgtc 600  
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&lt;210&gt; 2

&lt;211&gt; 558

&lt;212&gt; PRT

&lt;213&gt; Hypomyces mycophilus

&lt;400&gt; 2

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1

5

10

15

Glu Ala Ala Gln Pro Phe Val Ala Asp Val Leu Val Ser Lys Gly Leu

20

25

30

Ile Ala Lys Ile Gly Asn Pro Gly Ser Ile Asn Ala Thr Pro Asp Thr

35	40	45
Arg His Leu Asp Val Thr Gly Tyr Ile Leu Ser Pro Gly Phe Ile Asp		
50	55	60
Met His Ala His Ser Asp Leu Tyr Leu Leu Ser His Pro Asp His Glu		
65	70	75 80
Ala Lys Ile Thr Gln Gly Cys Thr Thr Glu Val Val Gly Gln Asp Gly		
85	90	95
Ile Ser Tyr Ala Pro Ile Arg Asn Val Asp Gln Leu Arg Ala Ile Arg		
100	105	110
Glu Gln Ile Ala Gly Trp Asn Gly Asn Pro Thr Asp Glu Glu Cys Arg		
115	120	125
Thr Thr Leu Lys Gly Val Gly Met Phe Glu Trp Gln Thr Ile Gly Glu		
130	135	140
Tyr Leu Asp Cys Leu Glu Arg Asn Arg Thr Ala Thr Asn Val Ala Met		
145	150	155 160
Leu Val Pro Gln Gly Asn Leu Arg Leu Leu Ala Cys Gly Pro Tyr Asp		
165	170	175
Thr Pro Ala Ser Ala Glu Glu Ile Gln Asp Gln Ile Gln Leu Leu Arg		
180	185	190
Glu Ala Met Ala Gln Gly Ala Val Gly Met Ser Ser Gly Leu Thr Tyr		
195	200	205
Thr Pro Gly Met Tyr Ala Ser Thr Ser Glu Leu Ala Ser Leu Cys Ala		
210	215	220
Ala Leu Ala Gln Glu Phe Pro Gly Ala Phe Tyr Ala Pro His His Arg		

225	230	235	240
Ser Tyr Gly Phe Gln Ala Ile Glu Ser Tyr Ala Glu Met Leu Asp Leu			
245	250	255	
Gly Glu Ser Thr Gly Cys Pro Ile His Leu Thr His Ala Thr Leu Asn			
260	265	270	
Phe Ser Glu Asn Lys Gly Lys Ala Pro Val Leu Ile Ser Met Val Asp			
275	280	285	
Lys Ser Leu Ala Ala Gly Val Asp Val Thr Leu Asp Thr Tyr Pro Tyr			
290	295	300	
Leu Pro Gly Cys Thr Thr Leu Ala Ala Leu Leu Pro Ser Trp Ala Ser			
305	310	315	320
Ala Gly Gly Pro Gln Glu Thr Leu Lys Arg Leu Glu Asp Ala Glu Ser			
325	330	335	
Arg Glu Lys Ile Arg Ile Ala Val Glu Ile Lys Gly Cys Asp Gly Gly			
340	345	350	
His Gly Ile Pro Thr Asn Trp Asp Glu Ile Gln Ile Gly Thr Thr Asn			
355	360	365	
Glu Pro Ser Ile Ala Ser Tyr Ser Gly Arg Arg Leu Ser Glu Val Ala			
370	375	380	
Gln Ser Val Gly Lys Pro Thr Ile Glu Val Phe Phe Glu Ile Leu Gln			
385	390	395	400
Lys Asp Lys Leu Ala Thr Ser Cys Ile Met His Val Gly Asn Glu Glu			
405	410	415	
Asn Val Arg Gln Ile Met Gln His Arg Val His Met Ala Gly Ser Asp			

420

425

430

Gly Ile Leu His Gly Gln Thr Leu His Pro Arg Ala Tyr Gly Thr Phe  
 435 440 445

Thr Arg Tyr Leu Gly His Tyr Ser Arg Glu Leu Ser Leu Val Ala Leu  
 450 455 460

Pro Ser Met Ile Ala His Leu Thr Ser Arg Pro Ala Lys Arg Leu Ser  
 465 470 475 480

Val Tyr Pro Tyr Arg Gly Leu Ile Ala Glu Gly Ser Ala Ala Asp Ile  
 485 490 495

Val Val Phe Asn Pro Glu Thr Val Lys Asp Met Ser Thr Tyr Glu Glu  
 500 505 510

Pro Lys Val Pro Ser Arg Gly Ile Arg Phe Val Leu Val Asn Gly Gln  
 515 520 525

Ile Ala Val Asp Glu Gly Lys Met Thr Gly Thr Arg Gly Gly Lys Thr  
 530 535 540

Leu Arg Arg Ser Thr Asp Gly Lys Val Lys Ala Arg Asp Glu  
 545 550 555

&lt;210&gt; 3

&lt;211&gt; 20

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Artificially  
 Synthesized Primer Sequence

<400> 3

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20

<210> 4

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

<400> 4

ttcatcgaca tgcaygcna

20

<210> 5

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

<400> 5

tgngngcrt craangcytg

20

<210> 6

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

&lt;400&gt; 6

aangcytgng grtaytctc

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&lt;210&gt; 7

&lt;211&gt; 321

&lt;212&gt; DNA

<213> *Hypomyces mycophilus*

&lt;400&gt; 7

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 cgaagagctg gagctacatg gcctggcaat gccgaacctg ggcagtataa acgagcaatc 180  
 catcgccggc gccatatcta caggcacaca cggcagcagc atccaccacg gcctcatgtc 240  
 tgaggatatt ctgctctga aaatcactct cgcgggcggc aagacggagg catgctccaa 300  
 agacgaatac ccccaagcct t 321

&lt;210&gt; 8

&lt;211&gt; 20

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Artificially  
 Synthesized Primer Sequence

&lt;400&gt; 8

aggccaaaat caccaagga

20

&lt;210&gt; 9

&lt;211&gt; 20

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Artificially  
 Synthesized Primer Sequence

&lt;400&gt; 9

attggggaat acttgattg

20

&lt;210&gt; 10

&lt;211&gt; 20

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

&lt;400&gt; 10

ctggttcttt ccgcctcaga

20

&lt;210&gt; 11

&lt;211&gt; 20

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

&lt;400&gt; 11

attaaccctc actaaagggc

20

&lt;210&gt; 12

&lt;211&gt; 1325

&lt;212&gt; DNA

&lt;213&gt; Hypomyces mycophilus

&lt;400&gt; 12

caggacggcc actaatgtcg ccatgttggt tccgcaaggc aacctgagat tattggcatg 60  
tggtccatag gatactccag catctgcaga agagattcaa gatcaaattc agctcttgcg 120



agaggctatg gctcagggtg ctgtcgggat gtctagtggc ctcacttata caccgcgcat 180  
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 caata 1325

<210> 13

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

<400> 13

cggagagtca acaggctgtc c

21

<210> 14

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

<400> 14

cgcaggctat cagaagtggc

20

<210> 15

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

<400> 15

atcgccctca actggtctac

20

<210> 16

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

<400> 16

catatgatat cccgtcttgg

20

<210> 17

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

<400> 17

gattttggcc tcgtggtcag

20

<210> 18

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

<400> 18

cctcagtgga tgttgcttt ac

22

<210> 19

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

<400> 19

gcctgtacgg aagtgttact

20

<210> 20

<211> 253

<212> DNA

<213> *Hypomyces mycophilus*

<400> 20

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aatcttggca atcagtcctt tcgaaaccag cacatcggcc acaaagggtt gggctgcttc 180
atcgccggtg ataacagtgg ctgagtggaa gagaatttca gtccgcatcg ttggcaatgg 240
gaattcttct ggt                                     253
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<210> 21

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

<400> 21

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<210> 22

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

<400> 22

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<210> 23

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

<400> 23

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32

<210> 24

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificially  
Synthesized Primer Sequence

<400> 24

gagaagctta ttgaccattt ccccatgac

30

<210> 25

<211> 1897

<212> DNA

<213> *Hypomyces mycophilus*

<400> 25

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<210> 26

<211> 25

<212> PRT

<213> *Hypomyces mycophilus*

<400> 26

Gly Phe Ile Leu Ser Pro Gly Phe Ile Asp Met His Ala His Ser Asp

1

5

10

15

Leu Tyr Leu Leu Ser His Pro Thr His

20

25

<210> 27

<211> 20

<212> PRT

<213> *Hypomyces mycophilus*

<400> 27

Val Leu Ala Asp Glu Tyr Pro Gln Ala Phe Tyr Ala Pro His Ala Tyr

1

5

10

15

Ser Arg Gly Phe

20